REMARKS/ARGUMENTS

Amendments to the Claims

Claims 1 and 12 are amended to insert the limitation that the complementary surface of the structural member is unprimed and untreated. Support for this amendment can be found on page 5, lines 17-19. Claims 1 and 12 are further amended to limit the adhesive to a polymerizable composition which comprises an organoborane/amine complex, one or more of monomers, oligomers or polymers having olefinic unsaturation which is capable of polymerization by free radical polymerization and a compound which causes the complex to disassociate so as to release the organoborane to initiate polymerization of the one or more monomers, oligomers, or polymers having olefinic unsaturation. Claim 1 is further amended to delete at the end of the claim, the phrase "is capable of bonding to a low energy surface plastic", as this becomes redundant in view of the specification of the adhesive. Support for the description of the adhesive is found on page 9, lines 15-21. Claim 7 is amended to replace "reinforcement" with "reinforcing member" so as to use the same language as found in Claim 1 from which Claim 7 depends. Claims 13 and 14 are cancelled as the limitations of Claims 13 and 14 are now placed in Claims 1 and 12. The dependency of Claim 15 is amended to depend from Claim 1 rather than cancelled Claim 13. Claim 17 and 19 are amended to change its dependency from deleted Claim 13 to Claim 1.

Enclosed herewith find a Petition for Extension of Time for one month to extend the time for responding to this action until October 20, 2005. Also, please find enclosed a Supplemental Information Disclosure Statement. Each of these additional papers authorizes deduction from the Assignees' Deposit Account. Nevertheless, the undersigned hereby authorizes representatives of the United States Patent and Trademark Office to deduct from the Assignees' Deposit Account any appropriate amounts necessary as a result of filing of this paper or the papers filed concurrently herewith.

Priority Under 35 USC §119

Enclosed is a certified copy of the British Priority Application No. 0114684.4.

35 USC§102(b) Rejection

Claims 1, 4-5, 7 and 9-12 are rejected under 35 USC§102(b) as being clearly anticipated by Carpenter (U.S. 5,154,462) hereinafter referred to as "Carpenter."

Argument 35 USC§102(b) Rejection

Claims 1 and 12, as amended, require that the structural member be made of a molded plastic material having a low energy surface, that such structural member have an unprimed and untreated complementary surface and that the adhesive comprise a polymerizable composition which comprises an organoborane/amine complex; one or more monomers, oligomers or polymers having olefinic unsaturation which is capable of polymerization by free radical polymerization, and a compound which causes the complex to disassociate so as to release the organoborane to initiate polymerization of the one or more monomers, oligomers or polymers having olefinic unsaturation. As Carpenter does not teach each of these features, Claims 1, 4-5, 7 and 9-12 are novel and this ground of rejection must be withdrawn.

35 USC§103, Rejection 1

Claims 2, 3 and 6 are rejected under 35 USC§103(a) as being unpatentable over Carpenter as applied to Claim 1 above and in further view of the admitted prior art. Applicants traverse this rejection for the reasons stated hereinafter and respectfully request withdrawal of the rejection.

Argument 35 USC§103(a), Rejection 1

Carpenter discloses a method of making a cross member bumper beam that can be attached to the frame rails of a vehicle with the beam being made of two dissimilar materials that are bonded together with an adhesive. See column 2, lines 35-40. The first material used to make such bumper beam is metal disclosed at

column 4, lines 26-27. The second material is disclosed to be aluminum, light metals and various non-metallic materials, such as fiber reinforced plastic. See column 4, lines 34-40. There is no disclosure of what specific plastic material may be used in the fiberglass reinforced plastic. The Official Action admits that Carpenter does not disclose the type of plastic material which may be used to form reinforced plastic. The Official Action further says: However, it would have been obvious in the art to form a bumper system comprising a glass filled polypropylene such as conventional in the art as exemplified in the teachings of admitted prior art (numbered paragraphs 7-10)."

The Official Action provides no teaching or suggestion in Carpenter or any third reference which suggest that Carpenter be modified to add the three features discussed above. The teaching of Carpenter discloses further that the adhesive used can be an epoxy or polyurethane. See column 5, lines 4 and 5. The description contained in Carpenter describes bonding the two parts of the bumper beam together using such adhesives and does not teach or suggest that material used can be a low energy surface material as required in Claim 2 or that it could be a polyolefin, a polystyrene or polyamide material or that the material can be a fiber-filled polypropylene as in Claim 6. The Official Action argues it would be obvious to use such materials but provides no reference which suggests the use of such material in the process as described in Carpenter. Furthermore, this conclusion ignores the state of the art at the time the invention was made. In particular, it was well known in the art that low surface energy materials, such as polyolefins could not be adhered to by epoxy or polyurethane adhesives without the use of the primer or a treatment system. In particular, Applicants wish to cite several references which define the state of the art. Schaetzle, U.S. Patent 5,976,291 at column 1, lines 21-27 and column 2, lines 58-67; Gutowski et al., U.S. Patent 5,879,757 at column 1, lines 5-65 and column 3, line 66 to column 4, line 4; Matsuda et al, U.S. Patent 5,576,558 at column 1, line 14-42 and column 4, lines 21-23; Blow et al., U.S. Patent 5,307,428 at column 1, line 20 to column 2, line 40 and Simpson et al., U.S. Patent 5,132,172 at column 1, line 18 to column 2, line 39; Birnbrich et al, U.S. Patent 6,107,406 at column 1, line 6 to column 2, line 43; Bilkadi, U.S. Patent 5,639,546 at column 1, line 20-62 and column 3, line 47-53; and Kunz, U.S. Patent 5,387,449 at column 5, line 45 to column 6, line 30.

Because the state of the art demonstrates it was difficult to bond to such low energy surfaces without expensive and costly primers or treatment steps, one skilled in the art would be motivated against substituting low surface energy materials for the materials used in Carpenter. Furthermore, one skilled in the art would recognize that there are materials useful as matrix resins for a fiber-reinforced material which has high energy surfaces which would be easily bonded to another substrate through the use of epoxy resins, polyurethane, polyesters and the like. For this reason, one skilled in the art would be motivated against substituting a low surface energy material into the teachings of Carpenter.

There is no teaching or suggestion in the art to substitute for the epoxy or polyurethane adhesives, the adhesives as required by the claims. Reference to the passages cited in the state of the art indicates that a variety of adhesives are available for bonding to a variety of substrates and the Official Action fails to provide any motivation for one skilled in the art to choose the recited adhesives. Furthermore, in order to make out a case for *prima facie* obviousness, not only must the reference or references cited suggest modification of the primary reference to reach the claimed subject matter, the references which suggest the substitution must also predict a likelihood of success. As there is no reference which would suggest using the materials the low energy surface materials in the products of Carpenter and there is no teaching that such substitution would be successful, no case of *prima facie* obviousness is made out.

The Official Action stated that the admitted prior art provides such motivation. The admitted prior art indicates that adhesives exist which bond to low energy surface materials. There is no indication that low energy surface materials can be used in bonded automotive structures. Nor is there any teaching or suggestion that the adhesives of the prior art can be used to bond parts of front end carriers or bumpers together. Thus, there is no motivation to make these two substitutions and there is no expectation of success. In fact the Applicants' specification states that the prior art does not contemplate such substitutions, therefore there is no motivation to make the substitutions and in fact one would not expect success. There is no teaching cited or provided that the adhesives described in the cited references have acceptable

properties for the parts described in Carpenter together. Absent such evidence no expectation of success can be established.

Applicants assert that a rejection based on "admitted prior art" is improper here. The specific sections of the specification cited refers to prior art references, therefore the proper method of rejection is to cite the references referred to.

Assuming one skilled in the art would consider low surface energy materials, the state of the art would motivate one against because of the costly and difficult processes necessary to achieve such bonding as described in the art cited hereinbefore.

For these reasons, Applicants assert that Claims 2, 3 and 6 are unobvious in view of the teachings of the cited references.

35 USC§103, Rejection 2

Claims 8 and 15-19 are rejected under 35 USC§103(a) as being unpatentable over Carpenter as applied to Claims 1 and 13 above and in further view of Pocius, U.S. Patent 5,686,544, hereinafter "Pocius" and Sonnenschein et al., U.S. Patent 2002/0058764A1, hereinafter "Sonnenschein." Applicants traverse this rejection for the reasons stated hereinafter and respectfully request withdrawal of the rejection.

Argument 35 USC§103(a), Rejection 2

Applicants assume and argue as below with the understanding that the reference as applied to Claims 1 and 13 above really meant as applied to Claim 1 and 12 above.

Pocius and Sonnenschein disclose adhesive compositions comprising organoborane amine complexes, olefinic polymerizable compounds and compounds which cause the complex to disassociate. Neither reference discloses using such compositions to bond a structural member to a reinforcing member to prepare an automotive assembly. The ultimate issue is whether it is proper to combine the teachings of Carpenter with those of Pocius and Sonnenschein. The references do not provide a motivation to utilize the low energy surface area material in the bumper

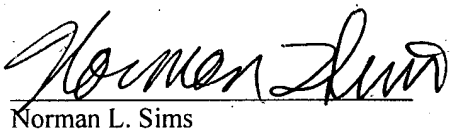
beam as disclosed by Carpenter. As there is no motivation to use such material and, based on the state of the art at the time this invention was made, one skilled in the art would have been motivated against using such materials as described hereinbefore, no case of *prima facie* obviousness may be made out. Furthermore, not only must there be the motivation to make the substitution but there must be an objective reasonable expectation of success if such a substitution were contemplated. There is no evidence provided that such a reasonable expectation of success of substitution existed. There are no references provided which suggest the substitution of adhesives as disclosed in Pocius and Sonnenschein for the epoxy or polyurethane adhesives as disclosed is useful in Carpenter. No references are provided which disclose the adhesives of Sonnenschein and Pocius are equivalent to epoxy and polyurethane adhesives for bonding bumper beam parts together. There is no evidence submitted that the adhesives as disclosed in Pocius and Sonnenschein have suitable properties to bond the parts disclosed in Carpenter together. Absent this teaching, no expectation of success can be established and no case of *prima facie* obviousness is made out. Furthermore, based on the disclosure of the prior art references discussed hereinbefore, one skilled in the art would expect that a primary surface treatment step would had been necessary if a low energy surface material were utilized for one of the parts of the bumper beam. There is no suggestion that a low energy surface area material could be used for one of the parts, that it could be bonded using the adhesives as described in Pocius and Sonnenschein in a manner such that no priming and surface treatment would be necessary.

There is no evidence, teaching or suggestion, provided in the Official Action that the adhesives disclosed in Sonnenschein have the necessary properties to bond the parts disclosed in Carpenter successfully. The fact that an adhesive bond to a type of material does not mean the adhesive is suitable for every application that material may be used in. Therefore, no expectation of success is proved and no case of *prima facie* obviousness is made out.

Conclusion

Applicants hereby assert that Claims 1-10, 12 and 15-19 are patentable over the teachings of the cited reference and respectfully request withdrawal of the rejection.

Respectfully submitted,



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